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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,774

07/28/2006

Kunihiko Horikawa

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466 7590 01/15/2009  
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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,774	<b>Applicant(s)</b> HORIKAWA ET AL.	
	<b>Examiner</b> Peter Vincent Agustin	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,6,8,11 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,7,9,10,12 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This application is a national stage entry (371) of PCT/JP04/14234, filed September 29, 2004.
2. Claims 1-16 are currently pending, with claims 2, 4, 6, 8, 11 & 13 withdrawn due to a previous restriction requirement. Claims 1, 3, 5, 7, 9, 10, 12 & 14-16 are being examined.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 7, 9, 10, 12 & 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukumoto (US 2003/0086346).

In regard to claim 1, Fukumoto discloses an information recording apparatus (Figure 1) comprising: a recording device (28) for irradiating an information recording medium (20) with laser light and for recording information onto the information recording medium; an obtaining device (28, 30, 32, 24, 46, 45, 44) for obtaining at least one of (i) a special OPC strategy (Figure 2, steps S28 & S30) for defining a waveform of the laser light used to calculate, at a first recording speed (S28 & S30: “speed v1”), an optimum laser power of the laser light (S36: “Px”) for recording the information at a second recording speed (S36: “required recording speed vx”) different from the first recording speed (S28: “v1<vx”), and (ii) a recording strategy for defining a waveform of the laser light used to record the information at the second recording speed (S36); a power calculating device (Figure 1, elements 24, 46 & 45) for calculating the optimum laser

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power by using the special OPC strategy at the first recording speed (see Figure 2, steps S28 & S30); and a controlling device (Figure 1, elements 24, 42 & 44) for controlling said recording device (28) to record the information at the second recording speed (Figure 2, step S36: “required recording speed  $v_x$ ”), by using the calculated optimum laser power (“ $P_x$ ”) and the recording strategy.

In regard to claim 3, Fukumoto discloses that said power calculating device calculates the optimum laser power by recording a test-writing pattern for calculating the optimum laser power (abstract: “test recording”), and the special OPC strategy makes the waveform of the laser light for recording the test-writing pattern at the first recording speed, shorter than the waveform of the laser light for recording the information at the first recording speed (understood from the description of test recording in paragraphs 0005 & 0006 and the manner of forming pulses in paragraphs 0029-0034).

In regard to claim 7, Fukumoto discloses that the second recording speed is faster than the first recording speed (Figure 2. step S28: “ $v_1 < v_x$ ”).

In regard to claim 9, Fukumoto discloses that an amplitude of the waveform defined by the special OPC strategy is the same as an amplitude of the waveform defined by the recording strategy (understood from paragraphs 0029-0034).

Claims 10, 12 & 14 have similar limitations as claim 1 and are rejected on the same grounds.

Furthermore, it should be noted that, in regard to claim 12, the limitation “for tangibly embodying a program of instructions executable by computer provided for an information recording apparatus...” (and everything thereafter) is merely a statement of intended use that

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does not define the structure of the claimed “computer program product in a computer-readable medium”, and therefore does not distinguish over any prior art reference that teaches any computer-readable medium having stored thereon any computer program. See MPEP § 2111.04.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukumoto in view of Kobayashi (US 2003/0021201).

For a description of Fukumoto, see the rejection above. However, Fukumoto does not disclose: in regard to claim 15, that a usual OPC strategy for defining a waveform of the laser light used to calculate an optimum laser power of the laser light for recording the information at the first recording speed is recorded in said control area; and in regard to claim 16, that a recording strategy for defining a waveform of the laser light used to record the information at the second recording speed is recorded in said control area.

Kobayashi discloses: in regard to claim 15, a usual OPC strategy for defining a waveform of a laser light used to calculate an optimum laser power of the laser light for recording information at a first recording speed recorded in a control area (Figure 4, RVI code 00h, recording velocity 1X); and in regard to claim 16, a recording strategy for defining a waveform of a laser light used to record information at a second recording speed recorded in a control area (Figure 4, RVI code 01h, recording velocity 2X).

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It would have been obvious to one of ordinary skill in the art at the time of invention to have applied the teachings of Kobayashi to the medium of Fukumoto, the motivation being to make it possible to smoothly perform recording processing at a velocity other than the standard linear velocity by storing in advance possible recording linear velocity information and write strategy information corresponding to the recording linear velocity in predetermined areas of an optical disc (see paragraph 0008).

***Allowable Subject Matter***

7. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. See reasons noted in the previous Office action.

***Response to Arguments***

8. Applicant's arguments filed December 4, 2008 have been considered but are moot in view of the new ground(s) of rejection.

***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is (571) 272-7567. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Vincent Agustin/  
Primary Examiner, Art Unit 2627